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| <b>UTILITY<br/>PATENT APPLICATION<br/>TRANSMITTAL</b><br><small>(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))</small> | Attorney Docket No.                      | 109.629.111                 |
|  | First Inventor or Application Identifier | Schermer                    |
|  | Title                                    | Method and Apparatus for... |
|  | Express Mail Label No.                   | EL384917375US               |

|   |  |
|---|--|
| <b>APPLICATION ELEMENTS</b><br><small>See MPEP chapter 600 concerning utility patent application contents.</small>  | <b>ADDRESS TO:</b><br>Assistant Commissioner for Patents<br>Box Patent Application<br>Washington, DC 20231   |
| 1. <input checked="" type="checkbox"/> * Fee Transmittal Form (e.g., PTO/SB/17)<br><small>(Submit an original and a duplicate for fee processing)</small>   | 5. <input type="checkbox"/> Microfiche Computer Program (Appendix)   |
| 2. <input checked="" type="checkbox"/> Specification [Total Pages 28]<br>- Descriptive title of the invention<br>- Cross References to Related Applications<br>- Statement Regarding Fed sponsored R & D<br>- Reference to Microfiche Appendix<br>- Background of the invention<br>- Brief Summary of the invention<br>- Brief Description of the Drawings (if filed)<br>- Detailed Description<br>- Claim(s)<br>- Abstract of the Disclosure             | 6. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)<br>a. <input type="checkbox"/> Computer Readable Copy<br>b. <input type="checkbox"/> Paper Copy (identical to computer copy)<br>c. <input type="checkbox"/> Statement verifying identity of above copies  |
| 3. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 7]  | <b>ACCOMPANYING APPLICATION PARTS</b><br>7. <input type="checkbox"/> Assignment Papers (cover sheet & document(s))<br>8. <input type="checkbox"/> 37 C.F.R. § 3.73(b) Statement <input type="checkbox"/> Power of Attorney<br><small>(when there is an assignee)</small><br>9. <input type="checkbox"/> English Translation Document (if applicable)<br>10. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations<br>11. <input type="checkbox"/> Preliminary Amendment<br>12. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503)<br><small>(Should be specifically itemized)</small><br>* Small Entity <input type="checkbox"/> Statement filed in prior application, Status still proper and desired<br>13. <input type="checkbox"/> Statement(s) <input type="checkbox"/><br><small>(PTO/SB/09-12)</small><br>14. <input type="checkbox"/> Certified Copy of Priority Document(s)<br><small>(if foreign priority is claimed)</small><br>15. <input type="checkbox"/> Other: ..... |
| 4. Oath or Declaration [Total Pages 4]<br>a. <input type="checkbox"/> Newly executed (original or copy)<br>b. <input type="checkbox"/> Copy from a prior application (37 C.F.R. § 1.63(d))<br><small>(for continuation/divisional with Box 16 completed)</small><br>i. <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b><br>Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b). |  |

\* NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:  
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: \_\_\_\_\_  
Prior application information: Examiner \_\_\_\_\_ Group / Art Unit: \_\_\_\_\_  
For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**17. CORRESPONDENCE ADDRESS**

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|                   |                              |                                   |          |
|-------------------|------------------------------|-----------------------------------|----------|
| Name (Print/Type) | Richard A. Goldenberg        | Registration No. (Attorney/Agent) | 38,895   |
| Signature         | <i>Richard A. Goldenberg</i> | Date                              | 03/20/00 |

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

|   |                |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |
|---|----------------|--|--|--------------------|-----|-------------|----------------|----------------------|----------|---------------|-----|------------------|-----|---------------------|-------------|
| <h1 style="margin: 0;">FEE TRANSMITTAL</h1> <h2 style="margin: 0;">for FY 2000</h2> <p style="font-size: small; margin: 0;">Patent fees are subject to annual revision.<br/>Small Entity payments <u>must</u> be supported by a small entity statement,<br/>otherwise large entity fees must be paid. See Forms PTO/SB/09-12.<br/>See 37 C.F.R. §§ 1.27 and 1.28.</p> |                | <p><b>Complete if Known</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>TBA</td> </tr> <tr> <td>Filing Date</td> <td>March 20, 2000</td> </tr> <tr> <td>First Named Inventor</td> <td>Schermer</td> </tr> <tr> <td>Examiner Name</td> <td>TBA</td> </tr> <tr> <td>Group / Art Unit</td> <td>TBA</td> </tr> <tr> <td>Attorney Docket No.</td> <td>109.629.111</td> </tr> </table> |  | Application Number | TBA | Filing Date | March 20, 2000 | First Named Inventor | Schermer | Examiner Name | TBA | Group / Art Unit | TBA | Attorney Docket No. | 109.629.111 |
| Application Number  | TBA            |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |
| Filing Date   | March 20, 2000 |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |
| First Named Inventor  | Schermer       |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |
| Examiner Name   | TBA            |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |
| Group / Art Unit  | TBA            |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |
| Attorney Docket No.   | 109.629.111    |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |
| TOTAL AMOUNT OF PAYMENT   | (\$1,440.00)   |  |  |                    |     |             |                |                      |          |               |     |                  |     |                     |             |

| METHOD OF PAYMENT (check one)   | FEE CALCULATION (continued)  |                   |                   |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
|---|--|-------------------|-------------------|--|-----------------|-----------------|----------|-----|-----|-----|--------------------|-------------------------------------|-----|-----|-----|-----|-------------------|--|-----|-----|-----|-----|------------------|---------------------------|-----|-----|-------|-----|--------------------|--|-----|-----|------|-----|------------------------|--|---|--------------|--------------|----------------|----------|---|------------|-----|-----|-----|----------|--|-----|--------------------|-----|-----|-----|---|-------------------|----------|----------|-----------------|-----|--|-----|-----|------------------------|-----|-----|---|----|-----------------------------------|-------|-----|-----|--|---------------------------------------|-----|-----|-----|-----|--|-----|-----|-----|-----|--|--|--|-----|-----|-----|-----|--------------------------|--|-----|-------|-----|-------|---|--|-----|-----|-----|----|----------------------------------|--|-----|-------|-----|-----|------------------------------------|--|-----|-------|-----|-----|--------------------------------|--|-----|-----|-----|-----|------------------|--|-----|-----|-----|-----|-----------------|--|-----|-----|-----|-----|-------------------------------|--|-----|----|-----|----|---|--|-----|-----|-----|-----|---|--|-----|----|-----|----|--|--|-----|-----|-----|-----|---|--|-----|-----|-----|-----|--|--|---------------------------|--|--|--|--|--|---------------------------|--|--|--|--|--|
| <p>1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:</p> <p>Deposit Account Number: <span style="border: 1px solid black; padding: 2px;">08-0219</span></p> <p>Deposit Account Name: <span style="border: 1px solid black; padding: 2px;">HALE AND DORR</span></p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17</p> <p>2. <input type="checkbox"/> Payment Enclosed:<br/> <input type="checkbox"/> Check    <input type="checkbox"/> Money Order    <input type="checkbox"/> Other</p>   | <p><b>3. ADDITIONAL FEES</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Code</th> <th>Small Entity Code</th> <th>Fee (\$)</th> <th>Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>380</td><td>216</td><td>190</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>870</td><td>217</td><td>435</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,360</td><td>218</td><td>680</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,850</td><td>228</td><td>925</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>300</td><td>219</td><td>150</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>300</td><td>220</td><td>150</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>260</td><td>221</td><td>130</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,210</td><td>241</td><td>605</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,210</td><td>242</td><td>605</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>430</td><td>243</td><td>215</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>580</td><td>244</td><td>290</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>126</td><td>240</td><td>126</td><td>240</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>690</td><td>246</td><td>345</td><td>Filing a submission after final rejection (37 CFR § 1.129(a))</td><td></td></tr> <tr><td>149</td><td>690</td><td>249</td><td>345</td><td>For each additional invention to be examined (37 CFR § 1.129(b))</td><td></td></tr> <tr><td colspan="5">Other fee (specify) _____</td><td></td></tr> <tr><td colspan="5">Other fee (specify) _____</td><td></td></tr> </tbody> </table> | Large Entity Code | Small Entity Code | Fee (\$)   | Fee (\$)        | Fee Description | Fee Paid | 105 | 130 | 205 | 65                 | Surcharge - late filing fee or oath |     | 127 | 50  | 227 | 25                | Surcharge - late provisional filing fee or cover sheet |     | 139 | 130 | 139 | 130              | Non-English specification |     | 147 | 2,520 | 147 | 2,520              | For filing a request for reexamination |     | 112 | 920* | 112 | 920*                   | Requesting publication of SIR prior to Examiner action |   | 113          | 1,840*       | 113            | 1,840*   | Requesting publication of SIR after Examiner action |            | 115 | 110 | 215 | 55       | Extension for reply within first month |     | 116                | 380 | 216 | 190 | Extension for reply within second month |                   | 117      | 870      | 217             | 435 | Extension for reply within third month |     | 118 | 1,360                  | 218 | 680 | Extension for reply within fourth month |    | 128                               | 1,850 | 228 | 925 | Extension for reply within fifth month |                                       | 119 | 300 | 219 | 150 | Notice of Appeal                                   |     | 120 | 300 | 220 | 150  | Filing a brief in support of an appeal |  | 121 | 260 | 221 | 130 | Request for oral hearing |  | 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding |  | 140 | 110 | 240 | 55 | Petition to revive - unavoidable |  | 141 | 1,210 | 241 | 605 | Petition to revive - unintentional |  | 142 | 1,210 | 242 | 605 | Utility issue fee (or reissue) |  | 143 | 430 | 243 | 215 | Design issue fee |  | 144 | 580 | 244 | 290 | Plant issue fee |  | 122 | 130 | 122 | 130 | Petitions to the Commissioner |  | 123 | 50 | 123 | 50 | Petitions related to provisional applications |  | 126 | 240 | 126 | 240 | Submission of Information Disclosure Stmt |  | 581 | 40 | 581 | 40 | Recording each patent assignment per property (times number of properties) |  | 146 | 690 | 246 | 345 | Filing a submission after final rejection (37 CFR § 1.129(a)) |  | 149 | 690 | 249 | 345 | For each additional invention to be examined (37 CFR § 1.129(b)) |  | Other fee (specify) _____ |  |  |  |  |  | Other fee (specify) _____ |  |  |  |  |  |
| Large Entity Code   | Small Entity Code  | Fee (\$)          | Fee (\$)          | Fee Description  | Fee Paid        |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 105   | 130  | 205               | 65                | Surcharge - late filing fee or oath  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 127   | 50   | 227               | 25                | Surcharge - late provisional filing fee or cover sheet                     |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 139   | 130  | 139               | 130               | Non-English specification  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 147   | 2,520  | 147               | 2,520             | For filing a request for reexamination                                     |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 112   | 920*   | 112               | 920*              | Requesting publication of SIR prior to Examiner action                     |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 113   | 1,840*   | 113               | 1,840*            | Requesting publication of SIR after Examiner action                        |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 115   | 110  | 215               | 55                | Extension for reply within first month                                     |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 116   | 380  | 216               | 190               | Extension for reply within second month                                    |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 117   | 870  | 217               | 435               | Extension for reply within third month                                     |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 118   | 1,360  | 218               | 680               | Extension for reply within fourth month                                    |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 128   | 1,850  | 228               | 925               | Extension for reply within fifth month                                     |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 119   | 300  | 219               | 150               | Notice of Appeal   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 120   | 300  | 220               | 150               | Filing a brief in support of an appeal                                     |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 121   | 260  | 221               | 130               | Request for oral hearing   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 138   | 1,510  | 138               | 1,510             | Petition to institute a public use proceeding                              |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 140   | 110  | 240               | 55                | Petition to revive - unavoidable   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 141   | 1,210  | 241               | 605               | Petition to revive - unintentional   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 142   | 1,210  | 242               | 605               | Utility issue fee (or reissue)   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 143   | 430  | 243               | 215               | Design issue fee   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 144   | 580  | 244               | 290               | Plant issue fee  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 122   | 130  | 122               | 130               | Petitions to the Commissioner  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 123   | 50   | 123               | 50                | Petitions related to provisional applications                              |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 126   | 240  | 126               | 240               | Submission of Information Disclosure Stmt                                  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 581   | 40   | 581               | 40                | Recording each patent assignment per property (times number of properties) |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 146   | 690  | 246               | 345               | Filing a submission after final rejection (37 CFR § 1.129(a))              |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 149   | 690  | 249               | 345               | For each additional invention to be examined (37 CFR § 1.129(b))           |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| Other fee (specify) _____   |  |                   |                   |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| Other fee (specify) _____   |  |                   |                   |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| <p><b>1. BASIC FILING FEE</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Code</th> <th>Small Entity Code</th> <th>Fee (\$)</th> <th>Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>101</td><td>690</td><td>201</td><td>345</td><td>Utility filing fee</td><td>690</td></tr> <tr><td>106</td><td>310</td><td>206</td><td>155</td><td>Design filing fee</td><td></td></tr> <tr><td>107</td><td>480</td><td>207</td><td>240</td><td>Plant filing fee</td><td></td></tr> <tr><td>108</td><td>690</td><td>208</td><td>345</td><td>Reissue filing fee</td><td></td></tr> <tr><td>114</td><td>150</td><td>214</td><td>75</td><td>Provisional filing fee</td><td></td></tr> </tbody> </table> <p style="text-align: right;"><b>SUBTOTAL (1)</b> (\$690.00)</p> | Large Entity Code  | Small Entity Code | Fee (\$)          | Fee (\$)   | Fee Description | Fee Paid        | 101      | 690 | 201 | 345 | Utility filing fee | 690                                 | 106 | 310 | 206 | 155 | Design filing fee |  | 107 | 480 | 207 | 240 | Plant filing fee |                           | 108 | 690 | 208   | 345 | Reissue filing fee |  | 114 | 150 | 214  | 75  | Provisional filing fee |  | <p><b>2. EXTRA CLAIM FEES</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Total Claims</th> <th>Extra Claims</th> <th>Fee from below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>53</td> <td>-20** = 33</td> <td>18</td> <td>594</td> </tr> <tr> <td>5</td> <td>-3** = 2</td> <td>78</td> <td>156</td> </tr> <tr> <td colspan="4">Multiple Dependent</td> </tr> </tbody> </table> <p><i>**or number previously paid, if greater; For Reissues, see below</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Code</th> <th>Small Entity Code</th> <th>Fee (\$)</th> <th>Fee (\$)</th> <th>Fee Description</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td></tr> <tr><td>102</td><td>78</td><td>202</td><td>39</td><td>Independent claims in excess of 3</td></tr> <tr><td>104</td><td>260</td><td>204</td><td>130</td><td>Multiple dependent claim, if not paid</td></tr> <tr><td>109</td><td>78</td><td>209</td><td>39</td><td>** Reissue independent claims over original patent</td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td></tr> </tbody> </table> <p style="text-align: right;"><b>SUBTOTAL (2)</b> (\$750.00)</p> | Total Claims | Extra Claims | Fee from below | Fee Paid | 53  | -20** = 33 | 18  | 594 | 5   | -3** = 2 | 78                                     | 156 | Multiple Dependent |     |     |     | Large Entity Code                       | Small Entity Code | Fee (\$) | Fee (\$) | Fee Description | 103 | 18                                     | 203 | 9   | Claims in excess of 20 | 102 | 78  | 202                                     | 39 | Independent claims in excess of 3 | 104   | 260 | 204 | 130                                    | Multiple dependent claim, if not paid | 109 | 78  | 209 | 39  | ** Reissue independent claims over original patent | 110 | 18  | 210 | 9   | ** Reissue claims in excess of 20 and over original patent |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| Large Entity Code   | Small Entity Code  | Fee (\$)          | Fee (\$)          | Fee Description  | Fee Paid        |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 101   | 690  | 201               | 345               | Utility filing fee   | 690             |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 106   | 310  | 206               | 155               | Design filing fee  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 107   | 480  | 207               | 240               | Plant filing fee   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 108   | 690  | 208               | 345               | Reissue filing fee   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 114   | 150  | 214               | 75                | Provisional filing fee   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| Total Claims  | Extra Claims   | Fee from below    | Fee Paid          |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 53  | -20** = 33   | 18                | 594               |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 5   | -3** = 2   | 78                | 156               |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| Multiple Dependent  |  |                   |                   |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| Large Entity Code   | Small Entity Code  | Fee (\$)          | Fee (\$)          | Fee Description  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 103   | 18   | 203               | 9                 | Claims in excess of 20   |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 102   | 78   | 202               | 39                | Independent claims in excess of 3  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 104   | 260  | 204               | 130               | Multiple dependent claim, if not paid                                      |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 109   | 78   | 209               | 39                | ** Reissue independent claims over original patent                         |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| 110   | 18   | 210               | 9                 | ** Reissue claims in excess of 20 and over original patent                 |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |
| <p><b>SUBTOTAL (3)</b> (\$)</p> <p>Reduced by Basic Filing Fee Paid</p>   |  |                   |                   |  |                 |                 |          |     |     |     |                    |                                     |     |     |     |     |                   |  |     |     |     |     |                  |                           |     |     |       |     |                    |  |     |     |      |     |                        |  |   |              |              |                |          |   |            |     |     |     |          |  |     |                    |     |     |     |   |                   |          |          |                 |     |  |     |     |                        |     |     |   |    |                                   |       |     |     |  |                                       |     |     |     |     |  |     |     |     |     |  |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |    |     |    |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |                           |  |  |  |  |  |                           |  |  |  |  |  |

| SUBMITTED BY      |                              | Complete (if applicable)          |                |
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| Signature         | <i>Richard A. Goldenberg</i> |                                   |                |

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Attorney Docket No. 109.629.111)

In re Application of: )  
SHERMER et al. ) Examiner: Not Yet Assigned  
Serial No. Not Yet Assigned ) Art Unit: Not Yet Assigned  
Filed: Herewith )  
For: METHOD AND APPARATUS FOR )  
AUTOMATIC PIN DETECTION )  
IN MICROARRAY SPOTTING )  
INSTRUMENTS )

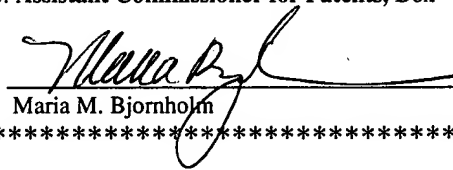
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Sir:

**TRANSMITTAL LETTER**

Enclosed herewith for appropriate action by the United States Patent and Trademark Office are the following documents:

1. New Utility Patent Application Transmittal (37 C.F.R. §1.53(b)), (in duplicate)  
including:
  - 21 Pages of Specification
  - 06 Pages of Claims
  - 01 Page of Abstract
  - 07 Sheets of Drawings (Fig Nos. 1A Through 15);
2. Combined Declaration and Power of Attorney (Unsigned); and
3. Return Postcard.

Schermer et al.  
Serial No.: TBA  
Page Two

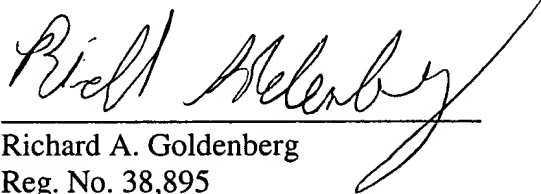
**Please send all correspondence related to the subject application to:**

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The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. 08-0219.

Respectfully submitted,

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